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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,937

04/13/2006

Takeo Okabe

OGOSH51USA

7084

270 7590 02/22/2010  
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EXAMINER

BAND, MICHAEL A

ART UNIT

PAPER NUMBER

1795

NOTIFICATION DATE

DELIVERY MODE

02/22/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@howsonandhowson.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/575,937	<b>Applicant(s)</b> OKABE ET AL.	
	<b>Examiner</b> MICHAEL BAND	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 5,6,9-12 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5,6,9-12 and 17-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 recites the limitations "said installing step" and "said placing step".

There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-6, 9-12, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashtiani et al (US Patent No. 6,500,321) in view of Tanaka et al (JP No. 04231461).

With respect to claims 5-6, 9-12, and 17-19, Ashtiani et al discloses sputtering targets that are capable of being in a planar shape comprising a deposition side or a cup-shaped target having an opening to expose a deposition side (abstract; figs. 1A-

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1B), with fig. 4 depicting multiple types of cup-shaped targets. Fig. 4 further depicts the cup-shaped target having a depth being at least as great as a diameter formed from a rim defining an open mouth (i.e. void) of said cup-shaped target. However Ashtiani et al is limited in that packaging the sputter target is not suggested.

Tanaka et al teaches a packaging method for a planar sputter target [1] comprising a plate protector (i.e. cover) [4], a bag-shaped material [6] covering a deposition side of said sputter target [1] and said protector [4], and a hole [5] traverses through said protector [4] (abstract; figs. 1-3). Tanaka et al further teaches the bag-shaped material [6] is evacuated and sealed (abstract). The protector [4] is capable of covering a void (i.e. hollow space) of the deposition side of the sputter target [1] as evidenced by the identically shaped target disclosed in Marx et al (US Patent No. 5,336,386; fig. 1, [10], [17]). Despite Tanaka et al not specifying the material of the bag-shaped material nor protector, it is either inherent or obvious that said material is a plastic polymer (i.e. resin) since this type of material is immediately envisaged as the most commonly used material for use in bags as useful to seal against an outside environment and to maintain an inner vacuum environment in addition to protecting a metal object. The plastic polymer is a resin as defined by *Merriam-Webster Online Dictionary* (see PTO-896 form, Reference U). Tanaka et al further teaches in figs. 1-3 the bag-shaped material [6] and protector [4] appearing to be transparent. In addition it would be obvious to try a transparent plastic resin as one of ordinary skill has good reason to pursue the known options within his or her grasp since said plastic resin can only be either transparent or opaque. In addition, it has been held that matters relating

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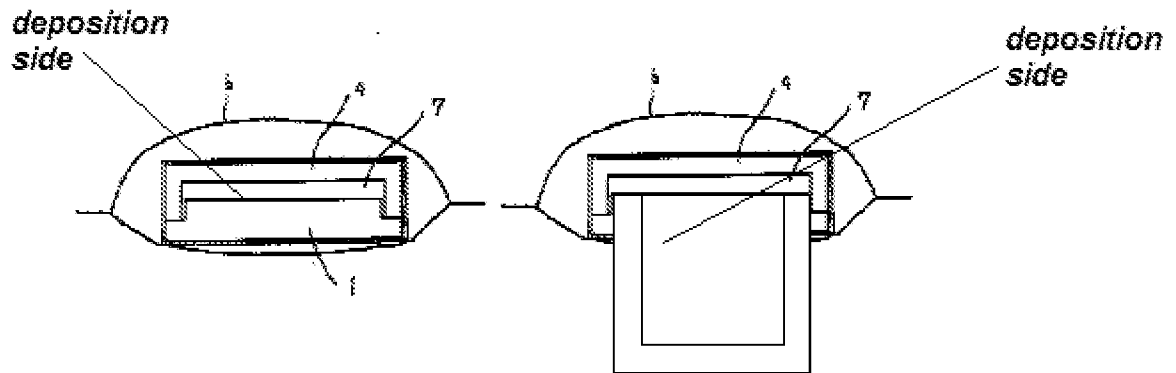
to ornamentation only which have no mechanical function cannot be relied upon to patentably distinguish the claimed invention from the prior art. See MPEP 2144.04, Section I. Therefore regardless of whether the plastic resin is transparent or opaque does not affect the ability of the bag-shaped material from maintaining a vacuum environment to prevent dust from contaminating the sputter target. Tanaka et al further teaches the bag-shaped material [6] is evacuated and sealed (abstract), therefore the said bag-shaped material [6] is impermeable to oxygen and moisture. Tanaka et al further teaches the cylindrical packing plate protector [6] is rigid and formed from a flat plate that maintains its shape after evacuation (abstract; figs. 1-3). Tanaka et al cites the advantage of using this packaging method as preventing adhesion of dust on the sputtering surface of the target and the damage of the sputtering surface (abstract).

It would have been obvious to one of ordinary skill in the art to use the packing method taught by Tanaka et al for the cylindrical sputtering target of Marx et al to gain the advantages of preventing adhesion of dust on the sputtering surface of the target and the damage of the sputtering surface.

Since the Tanaka et al reference teaches a sputter target [1] having a cover [4] which is rigid, flat, and appears to be transparent to protect the deposition side of said sputter target [1], where a hole [5] traverses through said cover [4], and Ashtiani et al teaches both a planar target comprising a deposition side and a cup-shaped target having an opening to expose a deposition side, the combination of references teach a cup-shaped target having a cover over a deposition side, and thus an opening, where said cover would not extend below said opening. The cropped figure below of fig. 3 from

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Tanaka et al serves to further clarify how the cover rests on the rim of the cup-shaped target to protect the deposition side.



### ***Response to Arguments***

#### **103 Rejections**

5. Applicant's arguments with respect to claims 5-6, 9-12, and 17-19 have been considered but are moot in view of the new ground(s) of rejection due to the new limitation requiring the positive structural recitation of 'hollow cathode body' in the claim body.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Band whose telephone number is (571) 272-9815. The examiner can normally be reached on Mon-Fri, 9am-5pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on (571) 272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. B./

Examiner, Art Unit 1795

/Alexa D. Neckel/

Supervisory Patent Examiner, Art Unit 1795